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DEVELOPMENT AND ADMINISTRATION OF THE YOUTH OPINION QUESTIONNAIRE. MINNESOTA STUDIES IN WORK ATTITUDES TECHNICAL REPORT NO. 2.

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PUB DATE OCT 66

EDRS PRICE MF-$0.25 HC-$2.16 52P.

DESCRIPTORS- *STATISTICAL ANALYSIS, *HIGH SCHOOL STUDENTS, *QUESTIONNAIRES, *WORK ATTITUDES, STUDENT ATTITUDES, SURVEYS, FACTOR ANALYSIS, YOUTH OPINION QUESTIONNAIRE,

THE YOUTH OPINION QUESTIONNAIRE IS BEING DEVELOPED AS AN INSTRUMENT WHICH MEASURES WORK ATTITUDES, IS APPROPRIATE FOR USE WITH HIGH SCHOOL AGE PEOPLE, AND REQUIRES 30-40 MINUTES TO COMPLETE. IT IS PART OF A RESEARCH PROJECT TO DETERMINE THE ATTITUDES (NEEDS, EXPECTATIONS, BELIEFS, AND PERCEPTIONS) OF THRESHOLD WORKERS WITH REGARD TO THE WORLD OF WORK, TO STUDY THE DEMOGRAPHIC AND SOCIOECONOMIC FACTORS ASSOCIATED WITH THESE ATTITUDES, AND TO INVESTIGATE THE RELATIONSHIP OF THESE ATTITUDES TO ENTRY WORK EXPERIENCE. THIS REPORT DESCRIBES THE DEVELOPMENT AND REFINEMENT OF THE YOQ FROM THE ITEM DATA PRESENTED IN VT 001 437. THE REFINED QUESTIONNAIRE CONTAINS 195 ITEMS OF WHICH 95 EMPLOY A RATING FORMAT (FOUR RESPONSE CHOICES) AND 100 A PAIR-COMPARISON FORMAT. IN THE ADMINISTRATION PHASE OF THE PROJECT, OVER 10,000 STUDENTS IN 15 HIGH SCHOOLS WERE SURVEYED WITH THE REVISED QUESTIONNAIRE. DATA FROM 806 STUDENTS FROM ONE SCHOOL SYSTEM WERE ANALYZED AS TO MEANS STANDARD DEVIATIONS, AND HOYT INTERNAL CONSISTENCY RELIABILITY COEFFICIENTS FOR THE 29 CONTENT SCALES. WITH THE EXCEPTION OF FIVE SCALES, THE QUESTIONNAIRE SHOWED HIGH INTERNAL CONSISTENCY RELIABILITY. RESULTS INDICATED THAT THE PSYCHOMETRIC OBJECTIVES FOR THE QUESTIONNAIRE HAVE IN LARGE MEASURE BEEN ATTAINED. THE ITEM CONTENT OF THE ORIGINAL FORMS A, B, C, AND THE REFINED FORM G OF THE QUESTIONNAIRE AND THE ADMINISTRATION INSTRUCTIONS ARE INCLUDED. (SL)

Minnesota Studies

in

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Technical Report No. 2

Development and Administration

of the Youth Opinion Questionnaire

Prepared by

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October, 1966

This report is prepared in connection with the project "Youth Unemployment: Frictions in the Threshold of the Work Career--An Exploratory Probe" conducted by the Industrial Relations Center under USDL Contract 81-22-01 with the Office of Manpower Policy, Evaluation and Research, U.S. Department of Labor. Principal investigators are Professors Herbert G. Heneman, Jr. and Rene' V. Dawis.

Acknowledgments

We wish to thank the following school principals and their staffs for their cooperation and assistance:

Mr. Carl Anderson, Washburn Sr.
Mr. Francis Babcock, Mound Sr.
Mr. Clair Bartosh, Richfield Sr.
Mr. Russell Brackett, Ramsey Jr.
Mr. Clifford Drill, Richfield West Jr.
Mr. Lewis Ely, Grandview Jr.
Mr. Lowell Formo, Osseo Sr.
Mr. Leo J. Frick, Edina Sr.
Mr. Ronald Goedken, Burnsville Jr.
Mr. Theodore Greer, Valley View Jr.
Mr. Russell Hersch, Osseo Jr.
Mr. Roy Isackson, Como Park Jr.
Mr. George Kirkeby, Mechanic Arts
Mr. Donald Moline, Owatonna
Mr. Robert Pomije, Burnsville Sr.
Mr. Robert Schanke, Murray Sr.
Mr. Roy Smythe, South View Jr.

We also wish to thank Dr. Van Mueller of ERDC, Dr. Robert Rainey of Minneapolis Public Schools, Dr. Walter Leino of St. Paul Public Schools, and Dr. Donald Christenson of the Minneapolis Urban Summer School Program for their help.

Finally, we wish to thank the more than ten thousand high school students who participated in the survey.

Development and Administration of the Youth Opinion Questionnaire

Background

This research project is being undertaken to determine the attitudes (needs, expectations, beliefs, and perceptions) of threshold workers[1] with regard to the world of work, to study the demographic and socioeconomic factors associated with these attitudes, and to investigate the relationship of these attitudes to entry work experience.

An immediate objective of the project is the development of a measure of work attitudes which samples a wide range of such attitudes, can be completed in 30-40 minutes, and is appropriate for use with young people of high school age (14 to 18 years). An experimental set of 467 items was administered, in groups of about 150 items each, to more than 5,000 high school students in Grades 9 through 12, in twelve schools representing a socioeconomic cross-section of urban and suburban schools. The data obtained in this administration are described in Technical Report 1 (December, 1965) of the projected Minnesota Studies in Work Attitudes series. This report describes in detail the item writing, school sampling, and questionnaire administration procedures. It also presents response distributions for each item, by total group and by groups categorized according to school, sex, school grade, father's education, family income, work experience, and birth order. Chi square tests were run to evaluate observed group differences in response distributions. The results of these tests are also presented in the report.

The present report, Technical Report 2, describes the development of the Youth Opinion Questionnaire from these item data.

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[1] A "threshold" worker is one who has just "entered" into his full-time work

Scale development and refinement

The experimental pool of 467 items was initially reduced by eliminating (52) items in which either 90% or more or 10% or less of all respondents were found to have chosen one response alternative. Development of scales from the remaining items was undertaken separately for items in the "Agree-Undecided-Disagree" format (Forms A, B, and C) and for items in the "pair-comparison" format (Forms D, E, and F).

1. Scale development using Forms A, B, and C

The items in Forms A, B, and C were intercorrelated, using contingency coefficient as the correlation index. (Contingency coefficients were used instead of product-moment coefficients because the bivariate response distributions for many of the item pairs were found to be non-linear.) The contingency coefficient matrix for the items in each separate form was cluster analyzed to identify homogeneous groups of items. The cluster analysis procedure used in the one described by Fruchter.[2] Hoyt analysis-of-variance reliability coefficients[3] were computed for each of these initial item clusters. To reduce the number of items in each cluster, the correlation between each item and total score for the cluster was calculated. (For scoring purposes, "Agree" was arbitrarily given a weight of 1, "Undecided" a weight of 2, and "Disagree" a weight of 3.)[4] The items showing the highest relationship with total score were selected to constitute a scale. Items showing low relationship with total score were dropped from

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[2]Fruchter, B. Introduction to factor analysis. New York: Nostrand, 1954.

[3]Hoyt, C. J. Test reliability estimated by analysis of variance. Psychometrica, 1941, 3, 153-160.

[4]Direction of scoring is irrelevant to the determination of size or magnitude of correlation, although it is relevant to the sign (positive or negative) of the correlation. For cluster analysis, size, but not sign, of the relationship is the necessary information.

Table 1. Number of items and reliability of scales resulting from the cluster analysis of items from Form A of the Youth Opinion Questionnaire (N=1698)

Scale	Number of items	Reliability
Twin City Employment	5	.77
Labor Unions	5	.57
Employers	5	.80
Monetary Advancement	4	.56
High School Drop-outs	4	.54
High School Diploma for Trades	3	.45
Pay	3	.45
High School Diploma for Jobs	3	.16

Table 2. Number of items and reliability of scales resulting from the cluster analysis of items from Form B of the Youth Opinion Questionnaire (N=1778)

Scale	Number of items	Reliability
Risky, Outdoor, Physical Activity B.	5	.28
Authority B	5	.64
Contact with People B	3	.54
Accuracy vs Speed	3	.53
Minorities	3	.48
Self-sufficiency B.	4	.51
The Work Ethic	4	.57
Success on the Job	4	.40
Reason for Working	3	.46
Blue Collar Preference.	3	.50
Novelty of Work	3	.26

Table 3. Number of items and reliability of scales resulting from the cluster analysis of items from Form C of the Youth Opinion Questionnaire (N=1715)

Scale	Number of items	Reliability
Authority C	5	.76
Risky, Outdoor, Physical Activity C	5	.68
Meaning of Work I	5	.66
Contact with People C	4	.26
Employee Integrity	4	.63
Meaning of Work II	4	.60
Aversion to Work	5	.70
Self-sufficiency C	5	.54
The Pragmatic Ethic	3	.52
Unavoidability of Work	3	.44

the scales. Table 1, 2, and 3 list the names and number of items for the 29 scales initially developed from Forms A, B, and C respectively, and the reliability coefficients obtained for these scales. Appendix A shows the items selected for each of these 29 scales.

2. Scale development using Forms D, E, and F

The pair-comparison items were grouped according to content into clusters, i.e., all items in which one particular response choice is found constituted one cluster. These clusters were then scaled employing the Method of Reciprocal Averages.[5] Tables 4, 5, and 6 show the names, number of items, and Hoyt reliabilities for the 33 scales developed from Forms D, E, and F respectively.

While these scales were more reliable than those developed from Forms A, B, and C, they had two undesirable characteristics: each scale consisted of more than twice as many items as the A-B-C scales, and all items were scored on more than one scale (thereby artifically increasing the correlation between scales). To reduce the number of items in each scale, only the four items showing the largest range of scoring weights were retained. Furthermore, each item retained was scored on only one scale. Employing this refinement, 33 four-item scales were developed from Forms D, E, and F. Tables 7, 8, and 9 show the reliabilities of these scales.

3. Factor analysis of the scales

The 62 scales (29 from Forms A, B, and C, and 33 from Forms D, E, and F) were intercorrelated. Since each respondent completed only two of the six

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[5]Mosteller, F. A theory of scalogram analysis, using noncumulative types of items. Report No. 9, Laboratory of Social Relations Harvard University. This method assigns scoring weights to each response alternative in such a way that the internal consistency (reliability) of the scale is maximized.

Table 4. Number of items and reliability of scales resulting from the Reciprocal Average scaling of item clusters from Form D of the Youth Opinion Questionnaire (N=1792)

Scale	Number of items	Reliability
Pay	12	.79
Steady Job	12	.84
Working Conditions	12	.69
Boss	12	.74
Advancement	12	.79
Kind of Work	12	.79
Co-workers	12	.81
Scientist	10	.85
Tycoon	10	.88
Artist	10	.87
Humanitarian	10	.79
Political Leader	10	.82
Religious Leader	10	.89

Table 5. Number of items and reliability of scales from the Reciprocal Average scaling of item clusters from Form E of the Youth Opinion Questionnaire (N=1540)

Scale	Number of items	Reliability
Business	14	.89
Money in Bank	14	.83
Buy Car or Clothes	14	.80
Travel	14	.82
Parents	14	.85
Education	14	.93
Good Time	14	.83
Buy Presents	14	.77

Table 6. Number of items and reliability of scales resulting from the Reciprocal Average scaling of item clusters from Form F of the Youth Opinion Questionnaire (N=1813)

Scale	Number of items	Reliability
Self Expression	11	.69
Formal Education	11	.81
Personal Influence	11	.71
Self Development	11	.80
Security	11	.78
Routine	11	.81
Problem Solving	11	.78
Authority	11	.69
Fame	11	.80
Working Hours	11	.76
Work Interest	11	.77
Latitude in Work	11	.81

Table 7. Reliability of four-item scales developed from Form D of the Youth Opinion Questionnaire

Scale	Reliability
Pay	.68
Steady Job	.68
Working Conditions	.57
Boss	.55
Advancement	.62
Kind of Work	.60
Co-workers	.60
Scientist	.75
Tycoon	.86
Artist	.76
Humanitarian	.59
Political Leader	.68
Religious Leader	.75

Table 8. Reliability of four-item scales developed from Form E of the Youth Opinion Questionnaire

Scale	Reliability
Business	.73
Money in Bank	.73
Buy Car or Clothes	.70
Travel	.54
Parents	.75
Education	.74
Good Time	.62
Buy Presents	.48

Table 9. Reliability of four-item scales developed from Form F of the Youth Opinion Questionnaire

Scale	Reliability
Self-Expression	.52
Formal Education	.71
Personal Influence	.52
Self Development	.66
Security	.58
Routine	.60
Problem Solving	.65
Authority	.59
Fame	.57
Working Hours	.50
Work Interest	.59
Latitude in Work	.72

forms, different groups completed different pairs of forms. Therefore, the scale intercorrelations obtained for any given pair of forms was based on a group different from the groups on which scale intercorrelations for other pairs of forms were based. Figure 1 shows how the 62-scale correlation matrix was constructed from correlation data obtained from 15 separate groups of respondents. Thus, for example, intercorrelations among Form A scales were based on Groups 1, 2, 3, 4, and 5; among Form B scales in Groups 1, 6, 7, 8, and 9; and the correlations between the Form A scales and the Form B scales were based on Group 1 only. The resulting correlation matrix was factor analyzed using the Method of Principal Components to extract factors and the Kaiser Varimax procedure for orthogonal rotation.[6] Thirty factors were extracted, which accounted for 87 per cent of the total variance in scale scores. Table 10 shows the 62 scales and their highest factor loadings. At least one scale with an extremely high loading was found for each factor. Such a scale may thus be taken as a relatively pure measure of the factor. The factor loadings of the scales selected to represent the 30 factors ranged from .74 for Personal Influence to .94 for Labor Unions, with a median of .85.

The 30 scales which were selected as measures of the 30 factors are listed in Table 11. Also shown in this Table is the contribution of each factor to the total variance of the scale scores, and the proportion this contribution is of the total accounted-for variance. Each factor extracted accounted for at least two per cent of the total accounted-for variance. Thus even the last few factors accounted for a worthwhile proportion of the variance.

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[6]Harman, H. H. Modern factor analysis. Chicago: University of Chicago Press, 1960.

Figure 1

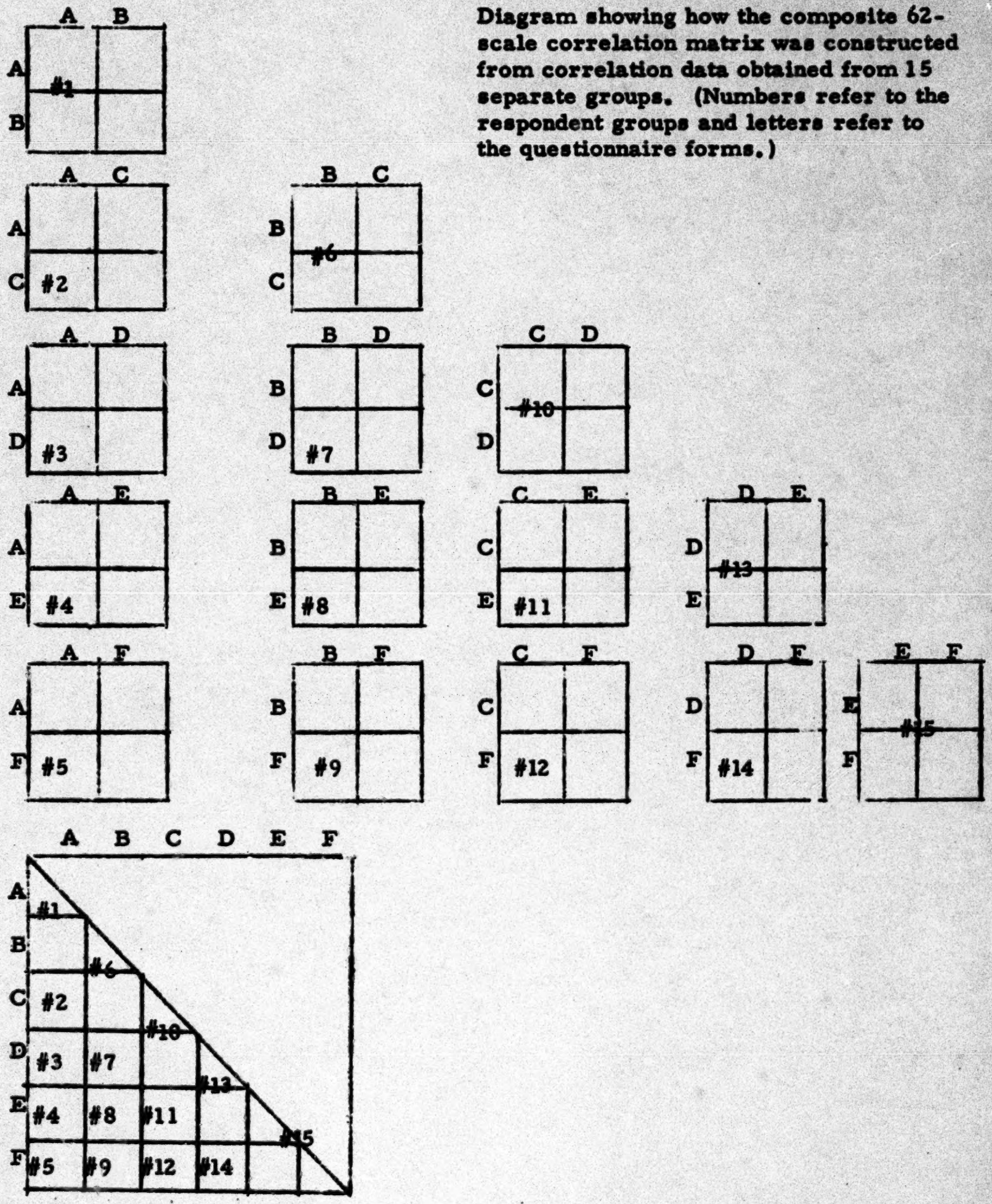

Diagram showing how the composite 62-scale correlation matrix was constructed from correlation data obtained from 15 separate groups. (Numbers refer to the respondent groups and letters refer to the questionnaire forms.)

Table 10. Highest factor loadings for the 62 Youth Opinion Questionnaire scales in a 30-factor Varimax solution factor analysis

Scale	Factor Loading	Factor Number
1. Twin City Employment.....	.86	XXVIII
2. Labor Unions.....	.94	XV
3. Employers.....	-.72	XI
4. Monetary Advancement....	.88	XIX
5. High School Drop-outs.....	.85	X
6. High School Diploma for Trades.....	-.93	XXVI
7. Pay.....	.49	II
8. High School Diploma for Jobs.....	.93	XI
9. Risky, Outdoor, Physical Activity B.....	.91	XXIV
10. Authority B.....	.92	III
11. Contact with People B....	.71	VIII
12. Accuracy vs Speed.....	-.91	XX
13. Minorities.....	.78	IV
14. Self-sufficiency B	-.88	IX
15. The Work Ethic.....	.90	XXI
16. Success on the Job.....	.84	IV
17. Reason for Working.....	-.89	XXIX
18. Blue Collar Preference..	-.34	VI
19. Novelty of Work.....	.79	XXIII
20. Authority C.....	.90	III
21. Risky, Outdoor, Physical Activity C.....	.78	XXX
22. Meaning of Work I.....	.83	II
23. Contact with People C...	.81	VIII
24. Employee Integrity.....	-.90	XXV
25. Meaning of Work II.....	.81	II
26. Aversion to Work.....	-.69	VI
27. Self-sufficiency C.....	.86	IX
28. The Pragmatic Ethic...	.56	II
29. Unavoidability of Work..	-.79	VI
30. Pay.....	-.70	XII
31. Steady Job.....	-.85	XVII
32. Working Conditions.....	.77	XII
33. Boss.....	-.91	VII
34. Advancement.....	-.74	XII
35. Kind of Work.....	.49	II

Table 10
(continued)

Scale	Factor Loading	Factor Number
36. Co-Workers	.65	XVII
37. Scientist.....	-.93	XVI
38. Tycoon.....	.74	V
39. Artist.....	-.43	V
40. Humanitarian.....	.89	XIV
41. Political Leader.....	.69	V
42. Religious Leader.....	-.79	V
43. Business.....	-.58	I
44. Money in Bank.....	.85	I
45. Buy Car or Clothes....	-.71	I
46. Travel.....	.82	XVIII
47. Parents.....	.49	I
48. Education	.90	I
49. Good Time.....	-.59	I
50. Buy Presents.....	-.76	I
51. Self Expression.....	.81	XXII
52. Formal Education.....	-.61	XIII
53. Personal Influence.....	.74	XIII
54. Self Development.....	.78	XXVII
55. Security.....	-.61	XIII
56. Routine.....	-.70	I
57. Problem Solving	.67	XIII
58. Authority.....	.64	I
59. Fame.....	.93	I
60. Working Hours.....	.89	I
61. Work Interest.....	.91	I
62. Latitude in Work.....	.83	I

Table 11. Contribution of, and the scale representing, the factors in the 30-factor Varimax solution

Factor Number	Representative Scale	Contribution	Proportion
I	Fame	8.76	.16
II	Meaning of Work I	3.08	.06
III	Authority B	2.32	.04
IV	Minorities	1.66	.03
V	Religious Leader	2.15	.04
VI	Unavoidability of Work	2.18	.05
VII	Boss	1.33	.02
VIII	Contact with People C	1.50	.03
IX	Self-sufficiency B	2.00	.04
X	High School Drop-outs	1.18	.02
XI	High School Diploma for Jobs	1.55	.03
XII	Working Conditions	2.04	.04
XIII	Personal Influence	2.72	.05
XIV	Humanitarian	1.36	.03
XV	Labor Unions	1.22	.02
XVI	Scientist	1.38	.03
XVII	Steady Job	1.42	.03
XVIII	Travel *	1.43	.03
XIX	Monetary Advancement	1.26	.02
XX	Accuracy vs Speed	1.09	.02
XXI	The Work Ethic	1.40	.03
XXII	Self Expression	1.29	.02
XXIII	Novelty of Work	1.17	.02
XXIV	Risky, Outdoor, Physical Activity B	1.23	.02
XXV	Employee Integrity	1.30	.02
XXVI	High School Diploma for Trades	1.12	.02
XXVII	Self-Development	1.18	.02
XXVIII	Twin City Employment	1.16	.02
XXIX	Reason for Working	1.15	.02
XXX	Risky, Outdoor, Physical Activity C	1.22	.02

* Dropped from final form

It is worth stressing that the present factor structure accounted for 87 per cent of the total variance in scale scores. This figure is much larger than the 40 to 60 per cent usually accounted for in most factor analyses of attitude variables. This means that the 30 scales most representative of the factors cover most of the content of the work attitudes sampled in this study. These 30 scales were therefore selected to constitute Form G of the Youth Opinion Questionnaire.

4. Refinement of the Form G scales

To clarify the meaning of each of the 30 scales, the correlation between scale item scores and total scale score was computed. These correlations were used to modify item wording for some items with the objective of increasing scale homogeneity. Two scales, Risky, Outdoor, Physical Activity B (from Form B) and C (from Form C), were composed of identical sets of items and were rewritten to emphasize two different aspects of their common item content: Mental vs Physical Activity and Risk-taking Attitude. The 19 scales derived from Forms A, B, and C were increased in length to 5 items each. Furthermore, the response alternatives were increased to four: Strongly Agree, Agree, Disagree, and Strongly Disagree. The Undecided category was left out to reduce the probability of non-linearity in the bivariate distributions. The 95 items of these 19 scales from Forms A, B, and C, were assembled together in a recurring invariant scale sequence to constitute Part I of Form G.

The 11 pair-comparison scales derived from Forms D, E, and F were increased to 10 items each by adding a fifth item to the original four, and by repeating all five items but with the response alternatives in reverse order. In assembling the pair-comparison items for Part II of Form G, it was found that the Travel scale did not lend itself to inclusion with the other scales. Consequently, this scale was dropped from the questionnaire. Part II of Form G therefore consisted

of 100 pair-comparison items measuring 10 rather than 11 scale dimensions. These items were sequenced in random order.

A consistency score was also developed from the 100 pair-comparison items. This score measures how consistently subjects make choices between the alternatives being compared, when the alternatives are presented in differing order. Presumably, consistency of response to Part II of the Questionnaire extends also to Part I.

The refined Youth Opinion Questionnaire (Form G) thus contains 195 items, of which 95 employ a rating format and 100 a pair-comparison format. It is scored on 30 scales: 29 content dimensions and a consistency score. A list of the items for each of the 29 content scales is given in Appendix B.

Sampling

The original sampling plan used in the Development phase of the project (see p. ii, Technical Report 1, Minnesota studies in work attitudes) was utilized in drawing the sample of schools for the Administration phase of the project. This sampling plan called for the categorization of the population of schools according to two strata: geographic area (urban, suburban and rural) and socioeconomic status (high, middle and low). For each category, students in the 9th through 12th grades were to be surveyed, yielding a three-way classification of survey respondents. Table 12 lists the population of schools, grouped according to the different stratifying categories. Enrollment figures as of October, 1964[7] are also given. Geographic area designations were based on Census Bureau definitions. Socioeconomic status designations were based on 1960 median income figures for the census tracts in which the schools are located. The distribution of schools

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[7] Educational Research and Development Council figures.

Table 12. Population of Twin Cities Metropolitan area Public High Schools (October, 1964)

Geographic area	Socioeconomic status	Number of schools	Grade 9th	10th	11th	12th	Total
Urban	Lower	20	3,206	4,490	4,033	4,129	15,858
	Middle	22	4,275	3,748	3,526	3,629	15,178
	Upper	4	991	1,137	1,117	972	4,217
	Total	46	8,472	9,375	8,676	8,730	35,253
Suburban	Lower	4	573	565	484	491	2,113
	Middle	31	7,649	7,526	6,871	6,656	28,702
	Upper	6	1,100	1,126	1,063	988	4,277
	Total	41	9,322	9,217	8,418	8,135	35,092
Rural	Lower	4	644	563	604	530	2,341
	Middle	11	1,411	1,497	1,249	1,207	5,364
	Upper	3	473	422	410	391	1,696
	Total	18	2,528	2,482	2,263	2,128	9,401
Total		105	20,322	21,074	19,357	18,993	79,746

Source: Educational Research and Development Council of the Twin Cities Metropolitan Area, Inc., 201 Burton Hall, University of Minnesota.

according to income, a separate distribution for each geographic area, was divided into three parts. Cut-off scores for the categories are shown in Table 13.

One additional restriction was placed on the sampling of schools for the Administration phase: the twelve schools which participated in the Development phase of the project were excluded from the sampling. From the remaining list of schools, one school was drawn randomly to represent each of the nine area-socio-economic status categories. Where the selected school was exclusively senior high (Grades 10 through 12 only), one of its "feeder" junior high schools was chosen for the 9th grade respondents. A list of alternate schools was also drawn up in similar fashion in the event an originally-selected school could not participate.

No plans for sampling students in each school were prepared. Previous survey experience had shown the unfeasibility of such procedures. In view of this, a quota sample of 200 students per grade per school was set. For most schools as it turned out, however, the most practicable procedure was to survey all available students (see Administration section below). This procedure resulted in some over-representation for certain sampling categories, and under-representation for others.

Administration of the Youth Opinion Questionnaire (Form G)

As in the Development phase, the Educational Research and Development Council (ERDC) of the Twin City metropolitan area again provided support, counsel, and assistance in the Administration phase of the project. Fifteen high schools participated in the administration of the revised Youth Opinion Questionnaire. Of these fifteen schools, five were senior high schools, six were junior high schools, and four were junior-senior high schools. In addition, three Urban Summer School Program schools from one school system participated in the

Table 13. Definition of socioeconomic status categories, by geographic area

Geographic area	Socioeconomic status	Number of schools	Income range
Urban	Lower	20	$6,000 and below
	Middle	22	$6,001 - $7,999
	Upper	4	$8,000 and up
Suburban	Lower	4	$6,999 and below
	Middle	31	$7,000 - $8,499
	Upper	6	$8,500
Rural	Lower	4	$5,600 and below
	Middle	11	$5,601 - $7,399
	Upper	3	$7,400 and up

survey during the summer session.

Initially, school superintendents or research directors of each school system concerned were visited to obtain permission to undertake the research in their schools. Following this, the principals of the schools involved were visited to obtain their permission. At this time, the project (purposes, questionnaire, administration, etc.) was reviewed (in some instances, with school counselors and other school personnel in attendance). Details of the administration procedure were mapped out. Classes were selected, administration dates and times chosen, and administration personnel assignments were made. (In every school, school staff members helped in the administration. In several schools, they actually undertook all or most of the tasks of administration.)

Only ninth grade students were surveyed in the junior high schools, while all grades (10, 11, and 12)in the senior high schools participated in the study. Over 10, 000 students have been surveyed in this (second) phase of the project. Table 14 shows the approximate sample sizes for various categories in the total survey sample.

Administration was by single class section in some schools and by whole grades (all sections combined) in other schools. The instructions read to the students are shown in Appendix C. Practically all the participating students completed the Youth Opinion Questionnaire within thirty minutes from the time they started. Very few questions were raised about the item content. Some of these questions concerned the apparent repetition of items and the repetitiousness of the pair-comparison format.

Preliminary results

Data from the second (Administration) phase of the project are still being processed. A portion of these data have been analyzed for inclusion in this report. For these data, the respondents consisted of 806 students from one school

Table 14. Estimated distribution of high school student respondents to the 1966 Youth Opinion Questionnaire Survey, by geographic area, socioeconomic status, and grade.

Geographic area	Socioeconomic status	Grade				Total
		9th	10th	11th	12th	
Urban	Lower	225	225	225	225	900
	Middle	400	170	170	160	900
	Upper	200	200	200	200	800
	Total	825	595	595	585	2600
Suburban	Lower	200	200	200	200	800
	Middle	400	800	800	800	2800
	Upper	200	200	200	200	800
	Total	800	1200	1200	1200	4400
Rural	Lower	300	200	200	200	900
	Middle	300	270	270	260	1100
	Upper	250	250	250	250	1000
	Total	850	720	720	710	3000
Total		2475	2515	2515	2495	10,000

system which was classified as suburban, middle socioeconomic status. They included 9th grade students in one junior high school, and 10th, 11th and 12th grade students in one senior high school.

1. Scoring

The 19 Part I scales were scored employing weights of 1 to 4 for the four response choices, the direction of scoring being determined a priori, with a high score presumably indicating a favorable attitude toward work, and a low score an unfavorable attitude.

The 10 Part II pair-comparisons scales were scored employing weights of 1 and 0. The response alternative in each pair which defined the scale was weighted 1 and the other alternative 0.

2. Descriptive statistics

The means, standard deviations, and Hoyt internal consistency reliability coefficients for the 29 content scales are shown in Table 15. The means for the Part I scales ranged from 9.1 to 15.8. The scores for these scales can range from 5 to 20. The means for the Part II pair comparison scales ranged from 2.6 to 8.2. The scores for these scales can range from 0 to 10. The standard deviations ranged, for the 19 Part I scales, from 2.38 to 3.48, and for the Part II pair-comparison scales, from 2.27 to 3.53. The Hoyt reliability coefficients ranged from .53 to .91 for the Part I scales, and from .80 to .90 for the Part II pair-comparison scales. Only five of the 29 scales had Hoyt reliability coefficients of lower than .80. Thus, with the exception of these five scales the Youth Opinion Questionnaire shows high internal consistency reliability.

3. Scale intercorrelation and factor structure

Table 16 shows the intercorrelations among the 29 scales, with squared multiple correlations in the principal diagonal of the correlation matrix. These

Table 15. Means, standard deviations, and Hoyt internal consistency reliabilities for the scales of the Youth Opinion Questionnaire, Form G, for a sample of high school students (N=806)

Scale	Number of items	Mean	SD	r_{xx}
1. Twin City Employment	5	12.8	3.04	.91
2. Labor Unions	5	12.0	2.78	.90
3. Monetary Advancement	5	13.4	3.34	.91
4. High School Drop-outs	5	9.1	2.90	.85
5. High School Diploma for Trades	5	15.0	3.09	.86
6. High School Diploma for Jobs	5	15.6	2.86	.82
7. Mental vs Physical Activity	5	12.0	3.48	.90
8. Authority	5	13.6	3.03	.89
9. Accuracy vs Speed	5	15.0	2.80	.87
10. Minorities	5	13.6	2.53	.53
11. Self-sufficiency	5	12.7	2.80	.80
12. The Work Ethic	5	10.8	2.62	.71
13. Reason for Working	5	13.4	2.38	.57
14. Novelty of Work	5	14.5	2.48	.72
15. Risk-taking Attitude	5	10.5	3.19	.84
16. Meaning of Work	5	15.8	2.59	.80
17. Contact with People	5	15.3	3.17	.90
18. Employee Integrity	5	13.8	3.12	.90
19. Unavoidability of Work	5	11.7	2.61	.70
20. Steady Job	10	3.6	3.08	.85

Table 15
(continued)

Scale	Number of items	Mean	SD	r_{xx}
21. Working Conditions	10	4.6	3.42	.88
22. Boss	10	2.6	2.73	.85
23. Personal Influence	10	8.2	2.27	.80
24. Self Development	10	7.7	2.64	.85
25. Fame	10	7.9	2.54	.84
26. Self Expression	10	8.1	2.52	.85
27. Humanitarian	10	5.0	3.23	.87
28. Religious Leader	10	3.2	3.53	.92
29. Scientist	10	4.5	3.45	.89

Note: The scale names listed above correspond to, and supercedes, the list of scale names given in Progress Report No. 2.

squared multiple correlations are the squares of the multiple correlations between each scale and all 28 other scales in the questionnaire. Table 16 shows that with a few exceptions the correlations between scales are uniformly low and close to zero. This indicates that the attempt to develop independent scales was successful to a large extent. This same finding is reflected in the squared multiple correlations, which ranged from .08 to .66 with a median of .22.

The 29 scale correlation matrix, with squared multiple correlations in the principal diagonal, was factor analyzed employing the Method of Principal Components and the Kaiser criterion for number of factors to extract. The resulting factor structure was rotated by the Varimax method. (See page 4.) The resulting Varimax factor structure is shown in Table 17. Four factors, accounting for only 26% of the total variance, were extracted. The first factor was defined by four pair-comparison scales: (1) Self Expression, (2) Personal Influence, (3) Fame, and (4) Self Development. It accounted for 41% of the common variance. The second factor was also defined by four pair-comparison scales: (1) Working Conditions, (2) Boss, (3) Religious Leader, and (4) Humanitarian. It accounted for 24% of the common variance. The third factor was bipolar being defined by two positively loading scales, High School Diploma for Jobs and High School Diploma for Trades, and two negatively loading scales, High School Drop-outs and Risk-taking Attitude. It accounted for 20% of the common variance. The fourth factor was a doublet, defined by the Work Ethic and Novelty of Work scales. It accounted for 15% of the common variance.

In summary, only 26% of the total variance in the Youth Opinion Questionnaire was found to be common, and this common variance was shared by only 14 of the 29 scales. These results, together with the findings in the preceding section, indicate that the psychometric objectives for the Youth Opinion

Table 16. Correlation matrix with squared multiple correlations in the principal diagonal, for the 29 scales of the Youth Opinion Questionnaire

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
1	08																												
2	14	11																											
3	06	07	15																										
4	-03	-04	-14	34																									
5	-07	05	08	-38	22																								
6	01	04	15	-41	31	27																							
7	03	-16	17	-16	10	17	24																						
8	05	-02	17	-10	07	10	24	26																					
9	02	04	10	-19	09	23	22	10	20																				
10	07	10	01	01	03	04	-07	-02	15	12																			
11	-02	-06	-05	12	02	-09	-01	15	00	09	18																		
12	06	16	03	-04	05	06	-06	-02	15	25	09	28																	
13	-02	07	14	09	08	00	-13	08	07	07	12	18	22																
14	07	00	01	-08	07	09	05	04	20	16	18	41	12	29															
15	-03	-03	00	25	13	-21	-11	24	-14	01	22	-02	18	-07	28														

Table 16 (continued)

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
16	10	-02	-02	-22	07	04	14	09	12	05	15	05	-16	29	-16	33													
17	-02	04	-04	-13	10	06	02	18	10	09	09	04	09	12	-10	17	22												
18	06	04	01	-15	04	02	03	-05	-02	04	-06	-08	-06	05	-08	21	01	10											
19	-02	-10	-06	07	-12	-17	11	-01	-05	-02	05	-05	-19	07	01	31	02	07	19										
20	-05	-02	-01	04	02	-07	-01	-03	05	07	15	16	08	03	-03	02	-05	-09	-01	12									
21	04	-01	-19	-03	03	-01	-02	-09	01	00	08	05	-11	01	-18	13	08	04	13	11	34								
22	01	-03	-20	04	02	-04	-05	-13	-02	03	-08	08	-11	02	-10	08	04	-03	10	05	53	33							
23	09	02	09	-18	07	06	20	21	18	03	00	-02	-11	07	-11	23	26	06	08	-03	06	01	57						
24	07	05	09	-21	13	10	26	12	25	09	03	10	-15	15	-20	30	17	07	09	08	13	05	60	54					
25	13	01	10	-16	01	06	25	26	17	04	04	03	-13	05	-03	20	19	06	04	01	-01	-05	59	55	53				
26	16	07	08	-18	04	09	24	19	22	06	-03	03	-12	11	-14	26	22	08	09	-04	06	00	71	64	68	66			
27	00	05	-05	-11	02	-01	-03	-07	04	-03	02	01	-08	09	-14	14	16	05	07	03	14	13	10	15	01	08	25		
28	04	01	-11	-10	-03	03	10	-02	07	00	-02	03	-16	07	-18	17	14	06	12	05	20	20	14	15	07	14	37	24	
29	03	-00	06	-08	-05	-01	08	04	13	-06	02	03	-11	07	-01	14	-12	07	06	13	05	03	08	18	12	13	32	27	24

Note. - Decimal points omitted.

Table 17. Varimax factor structure of the Youth Opinion Questionnaire, Form G

Scale	I	II	III	IV	h^2
1. Twin City Employment	.15	-.02	-.02	-.06	.03
2. Labor Unions	.00	.03	.09	-.15	.03
3. Monetary Advancement	.16	.29	.21	-.02	.15
4. High School Drop-outs	-.19	.07	**-.61**	-.01	.42
5. High School Diploma for Trades	.03	.03	**.47**	-.10	.23
6. High School Diploma for Jobs	.07	.07	**.58**	-.04	.35
7. Mental vs Physical Activity	.35	.02	.20	.11	.18
8. Authority	.34	.27	.01	-.08	.20
9. Accuracy vs Speed	.25	-.01	.28	-.24	.20
10. Minorities	.05	.01	.02	-.34	.12
11. Self-sufficiency	.08	.09	-.23	-.32	.17
12. The Work Ethic	.01	-.04	.06	**-.57**	.34
13. Reason for Working	-.14	.32	-.00	-.35	.24
14. Novelty of Work	.13	-.11	.09	**-.53**	.32
15. Risk-taking Attitude	-.05	.34	**-.41**	-.08	.29
16. Meaning of Work	.34	-.33	.07	-.16	.25
17. Contact with People	.25	-.09	.09	-.17	.11
18. Employee Integrity	.08	-.12	.11	.07	.04
19. Unavoidability of Work	.14	-.28	-.22	.06	.15
20. Steady Job	-.02	-.10	-.07	-.22	.06

Table 17 (continued)

Scale	I	II	III	IV	h^2
21. Working Conditions	-.02	-.56	.01	-.03	.31
22. Boss	-.09	-.53	-.04	-.05	.29
23. Personal Influence	.76	-.09	.06	.04	.59
24. Self Development	.70	-.21	.15	-.09	.56
25. Fame	.76	.02	.01	.03	.57
26. Self Expression	.82	-.11	.07	.01	.69
27. Humanitarian	.08	-.41	.06	-.07	.18
28. Religious Leader	.13	-.47	.05	-.02	.24
29. Scientist	.17	-.25	.00	-.04	.09
Contribution	3.01	1.74	1.44	1.20	7.39
Proportion	.41	.24	.20	.15	1.00

Questionnaire have in large measure been attained--namely to develop a set of multidimensional attitude scales that are short, quick-administering, reliable, and independent.

Appendix A

Item Content of the Initial Scales Developed from Forms A, B, and C of the Youth Opinion Questionnaire

Form A

Twin City Employment

1. Finding a job is easy in the Twin Cities.
2. Jobs for young people are hard to find in the Twin Cities.
3. Finding a job is hard in the Twin Cities.
4. Jobs for young people should not be hard to find in the Twin Cities.
5. Most of the young people who want employment can find a job in the Twin Cities area.

Labor Unions

1. Labor unions help young people find work.
2. Labor unions help young people get a break on their first job.
3. Labor unions provide a lot of jobs.
4. Labor unions make it easier to get a job.
5. Unions eliminate a lot of jobs.

Employers

1. Employers seem to think young people cannot be trusted.
2. Employers seem to think all young people are lazy.
3. Employers seem to think all young people don't know anything.
4. Employers think young people are not interested in doing a fair day's work.
5. Employers seem to think all young people can't do anything.

Monetary Advancement

1. I wouldn't take a job unless it provides an opportunity for future pay increases.
2. I'd take a job even if it didn't provide an opportunity for future pay increases.
3. There are a lot of jobs I'd take even though they didn't pay well.
4. I think I'm worth at least two dollars an hour.

High School Drop-outs

1. I think employment problems of high school drop-outs are not as bad as they are made out to be.
2. I think the problem of unemployment among high school drop-outs is exaggerated.
3. Anyone who wants a job badly enough can find one.
4. I think you can get a good job without a high school diploma.

High School Diploma for Trades

1. A high school diploma is needed for jobs in the trades, such as carpenter, plumber or electrician.
2. I think you could get a job in the trades without a high school diploma.
3. Many employers give high school drop-outs a break.

Pay

1. I'd take any job as long as it pays well.
2. Good pay would be the most important thing for me in taking a job.
3. Employers are in business to make a profit.

High School Diploma for Jobs

1. Most employers give preference to high school graduates.
2. Most employers hire only high school graduates.
3. Employers think young people are not interested in doing a fair day's work.

Form B

Risky, Outdoor, Physical Activity B

1. I wouldn't mind working on a job which was risky and could cause my death if it paid well.
2. I wouldn't mind work where there was a good chance of getting hurt on the job, if the pay was good.
3. I'd like a job where I could work outdoors.
4. I'd like work which requires a lot of physical activity.
5. I'd like a job which requires more mental than physical activity.

Authority B

1. I;d like a job where I made the decisions.
2. I'd like work where I am responsible for making the decisions.
3. I'd like a job where I was my own boss.
4. Even if the pay was the same I'd rather be a foreman than an ordinary worker.
5. I'd want to decide for myself what occupation is best for me.

Contact with People B

1. I'd like a job where you talk to a lot of people.
2. I'd like work where I was in frequent contact with the general public.
3. I'd like a job that involved salesmanship.

Accuracy vs Speed

1. I'd like to take my time and see if I can do the job perfectly.
2. I like to work slowly and accurately even if it takes a longer time.
3. I'd like a job where what counts is how accurate you are or how careful, not how fast.

Minorities

1. Poor people have just as good a chance to get ahead as anyone else.
2. Members of different racial and nationality groups have an equal chance of getting ahead in their jobs.
3. Older workers have at least as good a chance as younger workers to succeed on their jobs.

Self-sufficiency B

1. I wouldn't mind working in a company where I didn't know anybody.
2. Working in unfamiliar surroundings wouldn't bother me at all.
3. I wouldn't mind taking a job far away from home in a place I didn't know.
4. I'd like work which was completely ne to me, where I could try my hand at something new.

The Work Ethic

1. Work is the most important part of life.
2. Few things can be more important than work.
3. I'd rather work than do most any other thing.
4. Nothing would make me feel better than a good hard day's work.

Success on the Job

1. Success on the job depends mainly on how hard you work, not on getting the right kind of boss.
2. Members of different racial and nationality groups have equal chance of getting ahead.
3. Success on the job depends mainly on how hard you work, not what abilities you are born with.
4. Most workers will do a good job if left alone.

Reason for Working

1. I want to work because I'd like to get away from school.
2. I want to work because I'd like to leave home and be independent.
3. I want to work because I'd like to own a car.

Blue Collar Preference

1. I wouldn't mind working at a blue-collar job.
2. I wouldn't mind working in a factory.
3. I'd rather work with ideas than with machines and tools.

Novelty of Work

1. I'd like a job which was completely new to me, where I could try my hand at something new.
2. I'd rather work than stay at home.
3. I'd rather work than hang around with my friends.

Form C

Authority C

1. Even if the pay were the same, I'd rather be a foreman than an ordinary worker.
2. If the pay were the same, I'd rather be an ordinary worker than a foreman.
3. I'd like a job where I made the decisions.
4. I'd like work where I am responsible for making decisions.
5. I'd like a job where I was my own boss.

Risky, Outdoor, Physical Activity C

1. I wouldn't mind working on a job which was risky and could cause my death if the pay was good.
2. I wouldn't mind work where there was a good chance of getting hurt on the job, if the pay was good.
3. I wouldn't mind a job which forces me to gamble my future, if I had the chance to really make good.
4. I'd like work which required a lot of physical activity.
5. I'd like a job where I would work outdoors.

Meaning of Work I

1. Work is usually hard and boring.
2. Work is seldom enjoyable.
3. Work is the same hard grind whatever job you have.
4. Any job that pays well is okay with me.
5. I don't care what job I have--just so I can work.

Contact with People C

1. I'd like a job where you talk to a lot of people.
2. I'd like work where I was in frequent contact with the general public.
3. I'd like work that involved salesmanship.
4. I'd like a job where I worked by myself.

Employee Integrity

1. Most employees do not really earn their pay checks.
2. Most people do not do a good day's work.
3. Most workers will loaf on their jobs unless they are carefully watched.
4. Today's workers do not take real pride in their work.

Meaning of Work II

1. Work is a curse on mankind.
2. Most successful people get ahead because they know how to avoid hard work.
3. I can't see me wasting time thinking about what I want to be.
4. Work is the same hard grind whatever job you have.

Aversion to Work

1. I'd rather spend time with my friends than go to work.
2. I'd like to own a car if I didn't have to go to work to afford it.
3. If someone gave me all the money I need, I'd never go to work.
4. I'd like to have my own money if I didn't have to go to work.
5. If I could do something else, I wouldn't want to go to work.

Self-sufficiency C

1. I wouldn't mind working in a company where I didn't know anybody.
2. Working in unfamiliar surroundings wouldn't bother me at all.
3. I wouldn't mind taking a job far away from home, in a place I didn't know.
4. I'd want to try a different job after working at the same job for a few years.
5. I'd like to leave home and be independent if I didn't have to go to work.

The Pragmatic Ethic

1. There's no such thing as jobs that are "good" or "bad" for people; only jobs you can get and jobs you cannot get.
2. To make money, there are no right and wrong ways, only easy and hard ways.
3. Practically any job requires you to do some things that are wrong.

Unavoidability of Work

1. Work is something you've got to put up with.
2. Work is something you've got to do.
3. I'd rather spend time with my friends than go to work.

Appendix B

Items Content of the Scales in the Youth opinion Questionnaire, Form G

Twin City Employment

R 1. Finding a job is hard in the Twin Cities.
R29. Jobs for young people are hard to find in the Twin Cities.
43. Finding a job is easy in the Twin Cities.
63. Jobs for young people are easy to find in the Twin Cities.
82. Most young people who want employment can find a job in the Twin Cities.

Labor Unions

2. Labor unions make it easier to get a job.
28. Labor unions help young people find work.
42. Labor unions help young people get a break on their first job.
64. Labor unions provide a lot of jobs.
* 77. Labor unions make it easier for young people to get a job.

Monetary Advancement

3. I wouldn't take a job unless it provided an opportunity for future pay increases.
R27. I'd take a job even if it didn't provide an opportunity for future pay increases.
*41. I wouldn't take a job unless it provided for pay raises.
*R65. I'd take a job even if it didn't provide for pay raises.
*83. The job I take must provide an opportunity for future pay increases.

High School Drop-outs

4. I think the employment problems of high school drop-outs are not as bad as they make them out to be.
26. I think the problem of unemployment among high school drop-outs is exaggerated.
*40. The employment problems of high school drop-outs are not as bad as they say.
*66. High school drop-outs don't have a hard time finding jobs.
*78. High school drop-outs don't have any more trouble finding jobs than anyone else.

High School Diploma for Trades

5. A high school diploma is needed for jobs in the trades, such as carpenter, plumber, or electrician.
R25. I think you could get a job in the trades, such as carpenter, plumber or electrician, without a high school diploma.
*39. You cannot get a job in the trades, such as carpenter or plumber, without graduating from high school.
*R67. I think you could get a job in the trades, such as carpenter or plumber, without graduating from high school.
*R84. It is not necessary to have a high school diploma to get a job in the trades, such as carpenter or plumber.

R=Scored in reverse direction.
*=New items added.

High School Diploma for Jobs

6. Most employers hire only high school graduates.
24. Most employers prefer to hire only high school graduates.
*44. Most employers require a high school diploma for almost all jobs.
*58. Most employers won't hire you if you haven't graduated from high school.
*79. It is necessary to be a high school graduate to be hired on most jobs.

Mental vs Physical Activity

7. I'd like a job which requires more mental than physical activity.
R23. I'd like a job which requries a lot of physical activity.
*45. I'd like a job which requries a lot of mental activity.
*R59. I'd like a job which requires more physical than mental activity.
*85. I'd like a job which requires more thinking than physical activity.

Authority

8. I'd like work where I was responsible for making the decisions.
22. I'd like a job where I made the decisions.
46. I'd like a job where I was my own boss.
*60. I'd like a job where I could make my own decisions.
*80. I'd rather have a job where I would make the decisions than have them made for me.

Accuracy vs Speed

9. I like to work slowly and accurately even if it takes a longer time.
21. I like to take my time and see if I can do the job perfectly.
*47. I'd like a job which requires that I work carefully and accurately rather than fast.
*61. I'd like a job where accuracy is more important than speed.
*86. I'd like a job in which it is more important to be accurate than fast.

Minorities

10. Members of different racial and nationality groups have an equal chance of getting ahead in their jobs.
20. Poor people have just as good a chance to get ahead on their jobs as anybody else.
48. Older workers have at least as good a chance as younger workers to succeed on their jobs.
*62. Success on the job depends mainly on how hard you work, not what kind of abilities you are born with.
*81. The chances of getting ahead on the job depend upon the person himself not his race or age.

Self-sufficiency

11. Working in unfamiliar surroundings wouldn't bother me at all.
38. I wouldn't mind taking a job far away from home, in a place I didn't know.
53. I wouldn't mind working in a company where I didn't know anybody.
*72. Working with strangers doesn't bother me.
*91. Working in a company where I didn't know anyone would be okay with me.

The Work Ethic

12. I'd rather work than do most any other thing.
37. Few things can be more important than work.
52. Work is the most important part of life.
73. Nothing would make me feel better than a good hard day's work.
*87. Nothing is more important to me than work.

Reason for Working

13. I want to work because I'd like a car.
36. I want to work because I'd like to leave home and be independent.
*51. I want to work because I'd like to get married.
*74. I want to work because it means getting the things I want.
*92. I want to work because I'd like to be on my own.

Novelty of Work

14. I'd rather work than hang around with my friends.
35. I'd rather work than stay home.
*50. I'd rather work than have nothing to do.
*75. I'd rather work than do nothing.
*88. I'd rather work than hang around the neighborhood.

Risk-taking Attitude

15. I wouldn't mind a job which forced me to gamble my future, if I had the chance to really make good.
34. I wouldn't mind working on a job which was risky and could cause my death if the pay was good.
*49. I wouldn't mind a job where I would gamble my future if the rewards were good.
*76. I wouldn't mind a risky job if the rewards were good.
*93. I wouldn't mind a job in which some risk was involved.

Meaning of Work

R16. Work is usually hard and boring.
R33. Work is the same hard grind whatever job you have.
R57. Work is seldom enjoyable.
*R68. Work is usually unpleasant.
*R89. Work is rarely fun.

Contact with People

17. I'd like work where I was in frequent contact with the general public.
*32. I'd like a job where I could meet many different people.
*56. I'd like a job where I could meet interesting people.
*69. I'd like a job which required me to deal with many different people.
*94. I'd like a job which requried frequent contact with the public.

Employee Integrity

R18. Today's workers do not take real pride in their work.
*R31. Most workers don't take pride in their work.
*R55. Most workers do not care about their work.
*R70. Most workers are not really proud of the work they perform.
*R90. Most workers are not proud of the work they do.

Unavoidability of Work

R19. Work is something you've got to put up with.
R30. Work is something you've got to do.
*R54. Work is something that must be done.
*R71. Work is something you're forced to do.
*R95. Work is a necessary activity.

Steady Job

96. a. A steady job with poor pay.
OR
b. Good pay without a steady job.
*103. a. Co-workers I like without a steady job.
OR
b. A steady job with co-workers I don't like.
110. a. Good pay without a steady job.
OR
b. A steady job with poor pay.
*117. a. A steady job with co-workers I don't like.
OR
b. Co-workers I like without a steady job.
124. a. A steady job with poor pay.
OR
b. Good pay without a steady job.
*131. a. Co-workers I like without a steady job.
OR
b. A steady job with co-workers I don't like.
138. a. Good pay without a steady job.
OR
b. A steady job with poor pay.
*145. a. The kind of work I enjoy doing without a steady job.
OR
b. A steady job with the kind of work I don't enjoy doing.
*152. a. A steady job with co-workers I don't like.
OR
b. Co-workers I like without a steady job.
159. a. A steady job with the kind of work I don't enjoy doing.
OR
b. The kind of work I enjoy doing without a steady job.

Working Conditions

97. a. Good working conditions with no prospects for advancement.
    OR
    b. Good prospects for advancement with poor working conditions.
104. a. Good pay with poor working conditions.
    OR
    b. Good working conditions with poor pay.
111. a. Good prospects for advancement with poor working conditions.
    OR
    b. Good working conditions with no prospects for advancement.
118. a. Good working conditions with poor pay.
    OR
    b. Good pay with poor working conditions.
125. a. Good working conditions with no prospects for advancement.
    OR
    b. Good prospects for advancement with poor working conditions.
132. a. Good pay with poor working conditions.
    OR
    b. Good working conditions with poor pay.
139. a. Good prospects for advancement with poor working conditions.
    OR
    b. Good working conditions with no prospects for advancement.
146. a. Good working conditions with co-workers I don't like.
    OR
    b. Co-workers I like with poor working conditions.
156. a. Good working conditions with poor pay.
    OR
    b. Good pay with poor working conditions.
160. a. Co-workers I like with poor working conditions.
    OR
    b. Good working conditions with co-workers I don't like.

Boss

98. a. A good boss with no prospects for advancement.
    OR
    b. Good prospects for advancement with a poor boss.
105. a. The kind of work I enjoy doing with a poor boss.
    OR
    b. A good boss with the kind of work I don't enjoy doing.
112. a. Good prospects for advancement with a poor boss.
    OR
    b. A good boss with no prospects for advancement.
119. a. A good boss with poor pay.
    OR
    b. Good pay with a poor boss.

126. a. A good boss with the kind of work I don't enjoy doing.
OR
b. The kind of work I enjoy doing with a poor boss.
133. a. Good pay with a poor boss.
OR
b. A good boss with poor pay.
140. a. The kind of work I enjoy doing with a poor boss.
OR
b. A good boss with the kind of work I don't enjoy doing.
147. a. A good boss with poor pay.
OR
b. Good pay with a poor boss.
154. a. A good boss with the kind of work I don't enjoy doing.
OR
b. The kind of work I enjoy doing with a poor boss.
161. a. Good pay with a poor boss.
OR
b. A good boss with poor pay.

Personal Influence

100. a. A job which does not require a college education.
OR
b. A job where my opinion is valued.
107. a. A job where my opinion is valued.
OR
b. A job with short working hours.
114. a. A job where my opinion is valued.
OR
b. A job which does not require a college education.
121. a. A job where I could solve problems no one else can.
OR
b. A job where my opinion is valued.
128. a. A job where my opinion is valued.
OR
b. A job where I could not be fired.
135. a. A job where my opinion is valued.
OR
b. A job where I could solve problems no one else can.
142. a. A job where I could not be fired.
OR
b. A job where my opinion is valued.
149. a. A job where my opinion is valued.
OR
b. A job which requires little thinking.
153. a. A job with short working hours.
OR
b. A job where my opinion is valued.

163. a. A job which requires little thinking.
OR
b. A job where my opinion is valued.

Self Development

101. a. A job where I could continue to learn the rest of my life.
OR
b. A job which requires little thinking.

108. a. A job where I could continue to learn the rest of my life.
OR
b. A job with short working hours.

115. a. A job which requires little thinking.
OR
b. A job where I could continue to learn the rest of my life.

122. a. A job where I could continue to learn the rest of my life.
OR
b. A job which does not tie me down.

129. a. A job where I could continue to learn the rest of my life.
OR
b. A job where I could solve problems no one else can.

136. a. A job which does not tie me down.
OR
b. A job where I could continue to learn the rest of my life.

143. a. A job where I could solve problems no one else can.
OR
b. A job where I could continue to learn the rest of my life.

150. a. A job where I could not be fired.
OR
b. A job where I could continue to learn the rest of my life.

155. a. A job with short working hours.
OR
b. A job where I could continue to learn the rest of my life.

164. a. A job where I could continue to learn the rest of my life.
OR
b. A job where I could not be fired.

Fame

102. a. A job where I could become known for outstanding accomplishment.
OR
b. A job which requires little thinking.

109. a. A job where I could become known for outstanding accomplishment.
OR
b. A job with short working hours.

116. a. A job which requires little thinking.
OR
b. A job where I could become known for outstanding accomplishment.

123. a. A job where I could not be fired.
OR
b. A job where I could become known for outstanding accomplishment.
130. a. A job where I could become known for outstanding accomplishment.
OR
b. A job which does not require a college education.
137. a. A job where I could become known for outstanding accomplishment.
OR
b. A job where I could not be fired.
144. a. A job which does not require a college education.
OR
b. A job where I could become known for outstanding accomplishment.
151. a. A job where I could become known for outstanding accomplishment.
OR
b. A job which does not tie me down.
158. a. A job with short working hours.
OR
b. A job where I could become known for outstanding accomplishment.
165. a. A job which does not tie me down.
OR
b. A job where I could become known for outstanding accomplishment.

Self Expression

99. a. A job where I could express my ideas, talents and skills.
OR
b. A job which does not require a college education.
106. a. A job where I could express my ideas, talents and skills.
OR
b. A job where I could decide how the work is to be done.
113. a. A job which does not require a college education.
OR
b. A job where I could express my ideas, talents and skills.
120. a. A job with short working hours.
OR
b. A job where I could express my ideas, talents and skills.
127. a. A job where I could not be fired.
OR
b. A job where I could express my ideas, talents and skills.
134. a. A job where I could express my ideas, talents and skills.
OR
b. A job with short working hours.
141. a. A job where I could express my ideas, talents and skills.
OR
b. A job where I could not be fired.
148. a. A job where I could express my ideas, talents and skills.
OR
b. A job which requires little thinking.

157. a. A job where I could decide how the work is done.
OR
b. A job where I could express my ideas, talents and skills.
162. a. A job which requires little thinking.
OR
b. A job where I could express my ideas, talents and skills.

Humanitarian

167. a. A great artist, writer or musician.
OR
b. A great humanitarian.
169. a. A great humanitarian.
OR
b. A great political leader.
174. a. A great humanitarian.
OR
b. A great artist, writer or musician.
176. a. A great political leader.
OR
b. A great humanitarian.
178. a. A great humanitarian.
OR
b. A great business tycoon.
182. a. A great artist, writer or musician.
OR
b. A great humanitarian.
183. a. A great humanitarian.
OR
b. A great political leader.
192. a. A great humanitarian.
OR
b. A great artist, writer, or musician.
194. a. A great political leader.
OR
b. A great humanitarian.
195. a. A great business tycoon.
OR
b. A great humanitarian.

Religious Leader

170. a. A great artist, writer or musician.
OR
b. A great religious leader.
171. a. A great business tycoon.
OR
b. A great religious leader.

177. a. A great religious leader.
OR
b. A great artist, writer or musician.
179. a. A great religious leader.
OR
b. A great business tycoon.
181. a. A great political leader.
OR
b. A great religious leader.
184. a. A great artist, writer or musician.
OR
b. A great religious leader.
186. a. A great business tycoon.
OR
b. A great religious leader.
189. a. A great religious leader.
OR
b. A great political leader.
191. a. A great religious leader.
OR
b. A great business tycoon.
193. a. A great religious leader.
OR
b. A great artist, writer, or musician.

Scientist

166. a. A great scientist.
OR
b. A great business tycoon.
168. a. A great scientist.
OR
b. A great artist, writer or musician.
172. a. A great scientist.
OR
b. A great political leader.
173. a. A great business tycoon.
OR
b. A great scientist.
175. a. A great artist, writer or musician.
OR
b. A great scientist.
180. a. A great scientist.
OR
b. A great business tycoon.
185. a. A great scientist.
OR
b. A great artist, writer or musician.

187. a. A great business tycoon.
OR
b. A great scientist.

188. a. A great political leader.
OR
b. A great scientist.

190. a. A great artist, writer or musician.
OR
b. A great scientist.

Appendix C

OMPER Project
4-21-66

Instructions for Administration

I. Make certain all students are seated and have the Youth Opinion Questionnaire, separate answer sheet, and pencil.

II. Introduce yourself:
"My name is _____ of the University of Minnesota. We are conducting a survey of the opinions of high school students about work and jobs. I would take too much time to ask the questions of you individually, so we have put our questions into this one booklet entitled Youth Opinion Questionnaire." Please don't make any marks on the booklet.

III. "Everyone should have the booklet, a separate answer sheet, and a pencil. If you do not have all three please raise your hand. All marks should be made in pencil and only on the separate answer sheet. If you make a mistake or change your mind, erase the mistake completely and make the correction."

IV. "There are two parts to the booklet. In the first part you are asked whether you agree or disagree with a statement and how sure you are of your answer. In the second part, you are asked to say which of two things you like better."

V. "Now, take the separate answer sheet and turn it to the side labelled Youth Opinion Questionnaire. Please print the information requested. Item one, print your first name, middle initial, and last name. Today's date is _____. Item two, print your home address. If you do not know your zip code number, omit it. Print your telephone number. Item three, mark an 'X' in front of the correct sex. Item four, print your date of birth giving month, day, and year. Item five, print name of school _____. Item six, circle your present grade in school (freshmen is 9, sophomore is 10, junior is 11, senior is 12). Item seven, What do you plan to be doing after you graduate from high school? Circle one answer. Now turn the answer sheet over."

VI. "Open the booklet to the first page, Youth Opinion Questionnaire, Part I. Read this page silently to yourself as I read it aloud. (Read part 1 directions.) If you have any question at any time, raise your hand and someone will come to you to answer it. Don't disturb your neighbor. When you get to part 2, read the directions and continue. If the directions are not clear, raise your hand. Now, turn the page and begin."